sensitivity analyses were performed for all key parameters across the three time horizons and different percentages of drug provision (5%, 10% and 15%). **RESULTS:** For 1190 patients, we expect health system costs of $75 million over a 10-year horizon and $120 and $142 million over 20 and 30 year horizons (2012 CAD$). We estimated 580 deaths over 30 years, of which 52% will be due to HCV. Antiviral treatment will have been received by 1097 patients and 184 will have received a liver transplant. The sensitivity analysis shows that fibrosis stage at diagnosis will have the greatest impact on costs. Other key variables generating costs were liver-related morbidity and transplants. The need for transplants decreases when antiviral use increases. This offsets antiviral drug costs. **CONCLUSIONS:** Our model indicates that the amount of resources required by a single cohort of Albertans is substantial. The model also provides a resource which planners can use to estimate funding, as they will be responsible for allocating the resources needed to treat HCV.

PHS69

ESTIMATING HEALTHCARE RESOURCE USE ASSOCIATED WITH THE TREATMENT OF METASTATIC MELANOMA IN EIGHT COUNTRIES

McKendrick J[1], Gijsen M[1], Quinn C[1], Zhao Z[2], Barber BL[2]
[1]*PRMA Consulting, Fleet, UK,* [2]*Amgen Inc, Thousand Oaks, CA, USA*

OBJECTIVES: This study estimated the healthcare resource use (HRU) associated with the treatment of metastatic melanoma (stages IIIB–IV) in Australia, Canada, France, Germany, Italy, the Netherlands, Spain, and the UK. **METHODS:** Using published literature and clinician opinions, four treatment phases for metastatic melanoma were identified: active treatment (pre-progression), disease progression, best supportive care (BSC) or palliative care, and terminal care. The elements of HRU for each phase were identified. For most elements, estimates of the magnitude and frequency of use in clinical practice were not available from published literature and were obtained in 2014 through Delphi panels in each country, comprising up to eight experienced oncologists who treated patients with metastatic melanoma. **RESULTS:** Medical oncologists are the key care providers for patients with metastatic melanoma in all countries studied except Germany, where dermato-oncologists can also lead care. Each patient was estimated to require 1–2 consultations per month with a medical oncologist during active treatment phase. HRU during active treatment phase included an average of 1.16 physician consultations (range: 0.65–2.70), 1.23 CT imaging scans (0.88–1.5), and 1.35 day-hospital visits (0–2.7) per 3 months across all countries. HRU was intensive during disease progression phase, including an average of 0.47 inpatient admissions and 1.23 radiotherapy fractions. The use of palliative and hospice care during the BSC/palliative and terminal phases varied across countries. **CONCLUSIONS:** This study generated estimates of healthcare resource use in managing patients with metastatic melanoma using a consistent, robust methodology across eight countries. The estimates of magnitude and frequency of healthcare resource use were substantial and varied for some resources, particularly those used after disease progression.

PHS70

ASSOCIATION OF CHANGE IN FORCED VITAL CAPACITY WITH HEALTHCARE RESOURCE UTILIZATION IN PATIENTS WITH NEWLY DIAGNOSED IDIOPATHIC PULMONARY FIBROSIS

Reichmann WM[1], Yu Y[2], Macaulay D[3], Nathan SD[4]
[1]*Analysis Group, Inc., Boston, MA, USA,* [2]*Boehringer Ingelheim Pharmaceuticals, Inc., Ridgefield, CT, USA,* [3]*Analysis Group, Inc., New York, MA, USA,* [4]*Inova Heart and Vascular Institute, Falls Church, VA, USA*

OBJECTIVES: This study assessed the association between forced vital capacity (FVC) change post-diagnosis of idiopathic pulmonary fibrosis (IPF) and healthcare resource utilization (HRU) in patients with newly diagnosed IPF. **METHODS:** A retrospective chart review was conducted by US pulmonologists using an online case report form for patients diagnosed with IPF from 01/2011-06/2013. Patient eligibility criteria included: 1) ≥40 years old at IPF diagnosis; 2) IPF confirmed by lung biopsy and/or high-resolution computed tomography; 3) FVC results at diagnosis and ~6 months following diagnosis. Based on relative change in FVC percent predicted (FVC%pred), patients were categorized as stable (decline<5%), marginal decline (decline 5-9%), or significant decline (decline≥10%). Physician-reported IPF-related HRU included visits for urgent care or suspected acute exacerbation (AEx) and hospitalization. All outcomes were assessed from six months post-diagnosis to end of observation. HRU rates by FVC decline group were estimated and compared using unadjusted negative binomial regression, controlling for varying follow-up periods. A multivariable Cox model was constructed to assess risk of hospitalization post-FVC decline. **RESULTS:** The sample included 490 IPF patients from 168 pulmonologists with 250 (51%), 98 (20%), and 142 (29%) patients in the stable, marginal decline, and significant decline groups, respectively. At diagnosis, the mean age was 61±11 years, 68% were male, and the mean FVC%pred was 60±26%. The mean observation time across patients was 583±287 days. Groups with greater FVC decline exhibited higher rates of hospitalization and visits for urgent care or suspected AEx. Multivariable analysis showed that the significant (HR=3.6 [95%CI: 2.0-6.6]) and marginal decline (HR=2.4 [95%CI: 1.2-4.8]) groups were associated with higher risk of hospitalization than the stable group. **CONCLUSIONS:** Our findings suggest that greater FVC decline in the first six months post-diagnosis is associated with increased IPF-related HRU. Management options for IPF that slow FVC decline may help lessen future IPF-related HRU.

PHS71

BURDEN OF MELANOMA AMONG ADULTS ENROLLED IN MEDICAID PROGRAM

Shah R, Khanna R, Pace P, Banahan III B
University of Mississippi, University, MS, USA

OBJECTIVES: Melanoma is the most common kind of cancer in the United States. Low socio-economic status is associated with a diagnosis of melanoma at an advanced stage and higher mortality. The objectives of this study were to examine the healthcare resource utilization and treatment profile of adults with melanoma enrolled in Medicaid program. **METHODS:** The 2006-2008 Medicaid data for 36 states were used for the purpose of this study. A retrospective matched cohort study design was used. Study sample included individuals who were continuously enrolled in the Medicaid managed care program from 2006 to 2008, were between 18 to 65 years of age during the study period, had no previous history of cancer and had at least one inpatient and/or two outpatient claims for melanoma. Propensity scores were used to match melanoma patients with non-cancer controls (1:2 ratio). Melanoma-related healthcare use was determined in terms of inpatient (IP), emergency room (ER) visits, outpatient (OT) visits. Drug and treatment use (surgery or radiation therapy) was also studied. Wilcoxon rank sum tests were used to compare all-cause resource use between melanoma cases and non-cancer controls. **RESULTS:** 14,750 incident cases of melanoma in 2007 were identified. In terms of age, gender, and region, most were white (63.91%), female (72.80%), and from the northeast (32.56%) region of the country. Mean melanoma-related OT visits were significantly lower for blacks (4.038) as compared to whites (4.383). Melanoma surgery (78.75%) was the most commonly used treatment followed by radiation therapy (63.01%). Mean all-cause IP (0.229 vs 0.215), ER (3.637 vs 1.545), and OT visits (87.272 vs 52.785) were significantly higher for melanoma cases as compared to non-cancer controls. **CONCLUSIONS:** The healthcare resource and treatment use for melanoma varied by demographic characteristics. Melanoma diagnosis was found to be associated with significant healthcare resource utilization burden.

PHS72

EXPANSION OF CURRENT HPV VACCINATION GUIDELINES TO INCLUDE MEN WHO HAVE SEX WITH MEN WHO ARE 27 YEARS OR OLDER – A VALUE OF INFORMATION ANALYSIS

Deshmukh AA[1], Cantor SB[1], Chiao EY[2], Nyitray AG[3], Das P[1], Chhatwal J[1]
[1]*The University of Texas MD Anderson Cancer Center, Houston, TX, USA,* [2]*Baylor College of Medicine, Houston, TX, USA,* [3]*The University of Texas School of Public Health, Houston, TX, USA*

OBJECTIVES: Value of information analysis provides an analytic framework to understand prioritization of future research, and is increasingly used for research planning. Our objective was to explore the need for future research on expanding current human papillomavirus (HPV) vaccination guideline to include men who have sex with men (MSM), 27 years or older, treated for high-grade anal intraepithelial neoplasia (HGAIN). **METHODS:** We used two separate Markov models for HIV-positive and HIV-negative MSM to evaluate the inclusion of quadrivalent HPV (qHPV) vaccine as adjuvant/secondary prevention strategy in these subgroups. Using the healthcare payer's perspective, the simulation over patients' lifetimes was conducted discounting costs and benefits. We estimated the population-level expected value of perfect information (pEVPI), and population-level expected value of partial perfect information (pEVPPI) for six key model parameters—HGAIN to anal cancer progression, HGAIN regression, HGAIN recurrences, HPV incidence, vaccine efficacy, and utilities (measure of preference-based quality of life)—over the period of 20 years in the U.S. **RESULTS:** The pEVPI peaked in HIV-positive and HIV-negative MSM at the willingness-to-pay threshold (WTP) of $6,000/QALY (pEVPI was $7.3 million) and WTP of $75,000/QALY (pEVPI was $1.0 million), respectively. The pEVPI in HIV-positive and HIV-negative MSM at the economically acceptable WTP of $50,000/QALY were $0 and $714,831, respectively. The two parameters with highest pEVPPI in HIV-negative MSM at that WTP were vaccine efficacy (pEVPPI was $280,230) and HGAIN to anal cancer progression (pEVPPI was $10,807). **CONCLUSIONS:** In HIV-positive MSM, future research will be highly unlikely to change the cost-effectiveness of the vaccine; therefore implementation of the vaccination policy before the results of the ongoing clinical trials become available should be a priority. In HIV-negative MSM, a clinical trial is required before policy implementation. In both HIV-positive and HIV-negative MSM, further research is needed on estimation of HGAIN to anal cancer progression.

HEALTH SERVICES – Patient-Reported Outcomes & Patient Preference Studies

PHS73

IMPACT OF EMAIL REFILL REMINDERS ON MEDICATION ADHERENCE AMONG PATIENTS WITH CHRONIC DISEASES IN A RETAIL COMMUNITY PHARMACY

Taitel MS, Mu Y, Lou Y, Cannon A
Walgreen Co., Deerfield, IL, USA

OBJECTIVES: Adhering to prescribed medications is crucial for patients with chronic diseases to manage their conditions. However, rates of adherence to maintenance medications are often suboptimal, and forgetfulness is one of the most common reasons cited for nonadherence. Our objective is to evaluate the impact of an email refill reminder system on patient adherence to medications used to treat chronic conditions. **METHODS:** This retrospective cohort study used a propensity score matched (PSM) control group. Patients who received email refill reminders the first time in April 2013 comprised the test group. The control group included patients who did not receive the reminders and were propensity matched 1:1 to the test group based on baseline characteristics of age, gender, medications, patient fill status, baseline adherence rate, and therapeutic class. Medication adherence and persistence were calculated and compared between test and control groups in a 12-month follow-up period. Medication adherence was evaluated using continuous and categorical proportion of days covered (PDC) measures. Medication persistence was measured using days on therapy (persistence) and percent of patients on therapy. **RESULTS:** After PSM, test and control group included 14,527 patients each and their baseline characteristics were comparable. One-year PDC for patients in the test group was 2.59% higher compared to the control group (51.15% vs. 48.56%, $P < .001$). Persistence for the test group was 7.90 days higher than in the control group (236.01 vs. 228.11, $p< .001$). At the one-year follow-up, 43.79% of patients in the test group stayed on their therapy compared to 40.99% in the control group ($P<. 001$). **CONCLUSIONS:** Patients receiving email refill reminders demonstrated better adherence and persistence to maintenance medications than patients who did not receive the reminders.